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⑪ ④A No. 898310

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C.R. CL.

⑩ **CANADIAN PATENT**

⑤4 **ADJUSTABLE KEEL FOR SNOWMOBILE SKIS AND THE LIKE**

Nelson D. Shorrock, Dryden, Ontario, Canada

②1 APPLICATION No. 083,953
②2 FILED May 28, 1970

③0 PRIORITY DATE

No. OF CLAIMS 1

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ABSTRACT OF THE DISCLOSURE

A slot in the ski enables a keel to extend there-
through. This keel is adjustable vertically in the supports
to compensate for wear and to permit adjustment to varying ice
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A slot in the ski enables a keel to extend there-
through. This keel is adjustable vertically in the supports
to compensate for wear and to permit adjustment to varying ice
5 and snow conditions.

This invention relates to new and useful improvements
in skis, particularly skis for snowmobiles and similar vehi-
cles. It is well known that such vehicles suffer from side
slip when cornering, particularly when the surface is hard
10 packed snow or ice.

Various attempts have been made to provide a central
keel for such skis in order to enable it to bite into the
surface to a greater or lesser extent thus facilitating the
turning action.

15 However, many of these do not provide adjustment and
furthermore more are extremely difficult to attach and manu-
facture due to the multiplicity of parts normally required.

The present device overcomes all of these disadvanta-
ges by providing a very simple ski mounting for the keel which
20 is extremely rigid and is easily adjustable from both ends
with the minimum of trouble.

The device is economical in manufacture, simple in
construction and otherwise suitable for the purpose for which
it is designed.

25 With the foregoing in view, and such other or further
purposes, advantages or novel features as may become apparent
from consideration of this disclosure and specification, the
present invention consists of, and is hereby claimed to reside



in, the inventive concept which is comprised, embodied, embraced, or included in the method, process, construction, composition, arrangement or combination of parts, or new use of any of the foregoing, of which concept, one or more specific embodiments of same are herein exemplified as illustrative only of such concept, reference being had to the accompanying drawings in which:-

Figure 1 is a side elevation of one snowmobile ski showing the device in situ.

Figure 2 is a fragmentary side elevation of the ski and keel per se enlarged in respect to Figure 1.

Figure 3 is a sectional view along line 3-3 of Figure 2.

In the drawings like characters of reference indicate corresponding parts in the different figures.

Proceeding therefore to describe the invention in detail, reference character 10 illustrates a conventional snowmobile ski having an upwardly curved end 11 and a bracing handle 12 as clearly shown. Spring mounts or shackles 13 are secured to the upper surface 14 of the ski adjacent the front rear ends and a leaf spring 15 extends between these mounts in the usual way, king pin 16 mounting the spring and hence the ski to the body of the vehicle and steering mechanism (not illustrated). The portion between the shackles is referred to as the main planar portion.

My assembly collectively designated 17 consists of a keel plate 18, and mounting guides or plates 19, it being understood that a longitudinally extending slot 20 is formed

through the main planar portion of the ski centrally of the sides thereof and between the spring mounts 13 but terminating short thereof.

5 The mount for the keel consists of a pair of elongated side plates 19 mounted in spaced and parallel relationship upon the upper surface 14 of the ski one upon each side of the side walls of the slot 20, said plates being welded to the upper surface 14 as indicated by reference character 21.

10 The keep plate 18 is an elongated relatively thin cross sectioned rectangular member mounted between the plates 19 and movable up and down so that the lower edge 22 thereof extends through the slot and below the under surface 23 of the ski.

15 The keel 18 is mounted for limited vertical adjustment within the guides or plates 19 by a pair of nut and bolt assemblies 24 which extend through vertical pairs of slots 25 inside plates 19 and through the keel plate 18 as clearly shown. This permits the vertical adjustment of one end or the other of the keel or both as may be desired.

20 However, I have found it desirable to drop the rear end 26 of the keel slightly below the level of the front end 27 thereof in order to facilitate the keel action.

25 The keel plate 18 is easily replaceable if worn and is easily adjustable for various running surfaces. Furthermore the attachment of the side plates by welding to the upper side of the ski, gives the necessary rigidity to the assembly and strengthens the ski itself.

Various modifications can be made within the scope of

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the inventive concept which is herein disclosed and/or claimed. Accordingly, it is intended that what is set forth should be regarded as illustrative of such concept and not for the purpose of limiting protection to any particular embodiment thereof, and that only such limitations should be placed upon the scope of protection to which the inventor hereof is entitled as justice dictates.

WHAT IS CLAIMED TO BE THE PRESENT INVENTION IS:

(1) In a ski for snowmobiles and the like, the combination of a one-piece elongated runner having front and rear ends and provided with a central longitudinally extending slot which terminates at points spaced longitudinally inwardly from the respective front and rear ends of the runner so that portions of the runner at the opposite sides of the slot are integrally connected together by the end portions of the runner beyond the ends of the slot, a pair of upstanding horizontally elongated plates secured to the upper surface of said runner at the respective opposite side edges of said slot, the end portions of said plates being provided with transversely aligned vertical slots, an upstanding horizontally elongated keel adjustably positioned between said plates with its lower edge portion projecting below the underside of the runner, and a pair of bolt and nut assemblies extending transversely through the respective end portions of said keel and through the vertical slots in said plates, whereby to retain the keel in position and facilitate independent vertical adjustment of the end portions of the keel relative to the runner.



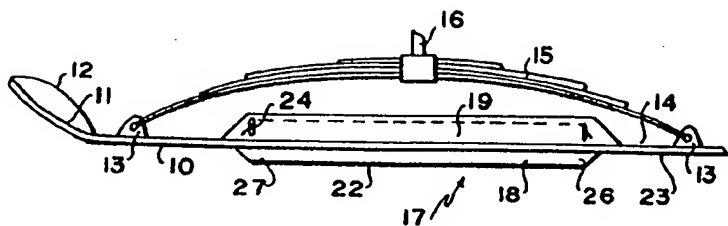


FIG. 1

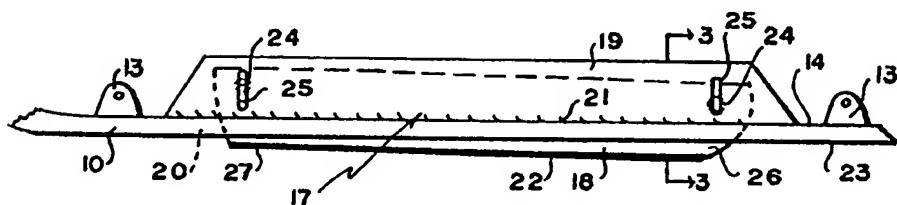


FIG. 2

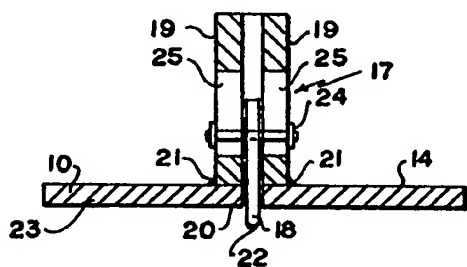


FIG. 3

Inventor

NELSON D. SHORROCK

by:

Cecil L. Kent & Associates

Patent Agent